

REMARKS

Claims 61-64, 70, 72-74, 76-97, 103, 105-107 and 109-120 are pending in this application, with claims 61, 93 and 94 being written in independent form. No claims are amended in response to the outstanding rejection.

Claim Rejections – 35 U.S.C. §103:

Claims 61-64, 70-97 and 103-120 are rejected under 35 U.S.C. § 103(a) as being obvious over US 5,502,568 to Ogawa et al. (Ogawa) in view of US 2001/0005004 to Shiratsuki et al. (Shiratsuki) and further in view of US Patent 6,577,299 to Schiller, et al. (Schiller). The rejection is respectfully traversed.

None of the applied references, whether considered alone or in combination, disclose or suggest each and every feature recited in the rejected claims. For example, the combination of references fails to disclose or suggest a touch pad, comprising a light transmissive element having a first surface adapted to receive light, the light transmissive element adapted to transmit received light inside of the light transmissive element along the first surface, as recited in independent claim 61.

Moreover, the combination of references fails to disclose or suggest the stylus or pen recited in independent claim 93, or the method of operating a touch pad comprising ...transmitting the received light inside the light transmissive element along the first surface, as recited in independent claim 94.

Ogawa relates to an optical position detecting unit that includes an optical position pointer 2 and a single photodetector 4 arranged above a surface of the screen 1a. The optical position detecting unit detects the coordinates of a position pointed by the optical position pointer 2 on the basis of the distance to a light emitting portion and direction of incidence of light, both of which are detected by the single photodetector 4 above the surface of the screen 1a (column 6, lines 13-25). Light is transmitted over a display surface of the image pickup unit and a distance to the pointer 2 is calculated by making use of a pattern image of a pattern plate 21 projected onto a linear image sensor 23 (column 8, lines 59-62; Fig. 1, Fig. 3). An angle to the pointer 2 is determined by using a pattern of suitable and known characteristics on the pattern plate 21 (column 9, lines 35-40, column 13, lines 23-26).

It is alleged in the Office Action that the pattern plate 21 of the photodetector 4 corresponds to the claimed light transmissive element, but it is admitted that the pattern plate 21 is not adapted to transmit received light inside of the light transmissive element along the first surface. In an attempt to overcome the admitted deficiency of Ogawa, Shiratsuki is combined with Ogawa and it is alleged that the combination of references renders the rejected claims obvious.

Shiratsuki relates to an irregular pattern detector which captures, as images, irregular patterns such as fingerprints (paragraph [0002]). Shiratsuki addresses problems in fingerprint ID apparatuses caused by deformation of a detected image (paragraphs [0004]-[0009]). As shown in Fig. 5 of Shiratsuki, a finger F is placed on a light guide body 2 and a light from a light source 1 is transmitted through the light guide body to the finger F. A spherical mirror 2C is used to reflect detected light to an imaging lens 4 that is then detected by a camera 3.

It is alleged in the Office Action that Shiratsuki shows “light transmissive elements which are capable of transmitting light along the surface to light detecting sensors.” However, Shiratsuki fails to disclose, nor does the Office Action identify any structure alleged to correspond to, a component used for transmitting light along the surface to light detecting sensors. Rather, in Shiratsuki, light is transmitted through a pattern plate onto light detecting sensors.

Additionally, it is alleged in the Office Action that Shiratsuki shows, at Fig. 5, the spherical mirror 2 is a waveguide, the imaging lens 4 is a CCD and the incident light L1 is the “light pen of Ogawa.” Applicants respectfully submit that the intent of this basis of rejection is somewhat confusing. For example, does the Examiner mean that light entering the pattern plate 21 of Ogawa would be redirected, as is the light in Shiratsuki, inside the pattern plate to an edge of the pattern plate 21? As discussed above, such a modification would certainly render the device inoperable. Moreover, Shiratsuki requires a finger to touch the plate from the opposite side to redirect light. As such a modification of the references would render the resulting device inoperable, one of skill in the art would not combine the references as proposed. Thus, the combination of references, fails to disclose or suggest the features as alleged in the Office Action.

Moreover, there is no suggestion or motivation to combine the references as proposed in the Office Action because such a modification of Ogawa would render Ogawa’s photodetector 4

inoperable. As discussed above, the photodetector 4 of Ogawa relies on a pattern being projected on the plate 21 onto a CCD linear image sensor 23. By modifying Ogawa as suggested in the Office Action, the projected pattern could no longer be projected onto the CCD thereby rendering Ogawa inoperable. As a proposed modification cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference, the proposed combination of references fails to render the claims obvious (MPEP §2145(X)(D). Also, because the proposed modification would render the reference inoperable, one of skill in the art would not combine the references as proposed in the Office Action.

Further, Ogawa discloses a digitizer having a single image pickup unit for determining the coordinates of a light pen by transmitting light over a display surface to an image pickup unit. In contrast, Shiratsuki relates to capturing images of an object, such as a finger, on the surface and does not relate to obtaining a position of the object on the surface. Rather, Shiratsuki seeks to accurately reproduce the detected image thereby eliminating deformations in the fingerprint.

Finally, Ogawa fails to disclose or suggest that the light transmissive member comprises a light transmissive display or monitor, as recited in claims 64 and 97. For example, in Ogawa, the alleged light transmissive member 21 is merely a surface of the photodetector 4 (see Fig. 3). Although it is alleged that col. 3, lines 52-57 and col. 5, lines 37-65 support the allegation that the pattern plate 21 is a display or monitor, neither of cited sections supports the allegation. Column 5, lines 37-65 recites that the optical coordinate input unit includes a cathode ray tube (CRT) 1. However, the CRT is not a component of the pattern plate 21 identified in the Office Action as corresponding to the claimed light transmissive member, the Office Action fails to establish a *prima facie* case of obviousness in rejecting claims 64 and 97.

As the combination of references fails to disclose or suggest all of the features recited in the rejected claims, withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the above, Applicant earnestly solicits reconsideration and allowance of all of the pending claims.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
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